REMARKS

Favorable reconsideration is respectfully requested.

The claims are 1, 10, 14 and 15.

The specification has been amended on pages 7 and 8. In this regard, "polymethacrylsulfonic acid" on page 7, line 31, of the specification has been changed to "polymethallylsulfonic acid". In the original Japanese specification of International Application PCT/JP2004/000385, on page 6, lines 8- 9, "ポリメタリルスルホン酸" is mentioned, but it was mistranslated. "ポリメタリルスルホン酸" should have been translated as "polymethallylsulfonic acid".

Further, on page 8, line 32, "N-vinylpyrrolidone/vinylsulfonic acid copolymer" and "N-vinylpyrrolidone/vinylsulfuric acid copolymer" on page 8, lines 32-33 and "N-vinylpyrrolidone/2-acrylamide-2-mothylpropanesulfonic acid copolymer" on page 8, lines 34-35, have been deleted because the above-mentioned three copolymers are described repeatedly on page 8, line 15, line 16, and lines 18-19, respectively.

Claims 1 and 10 have been amended as above, claims 11 to 13 have been cancelled, and new claim 14 and 15 are presented.

In above-amended claim 1, excluded from proton-supplying materials is a material obtained by converting a p-type electroconductive polymer to an oxidized form and doping the oxidized form polymer with a proton acid.

Support for this negative limitation is evident from the disclosure of page 13, lines 20 to 28.

In this regard, as pointed out in MPEP 2173.05(i), any negative limitation or exclusionary proviso must have basis in the original disclosure and if alternative elements are positively recited in the specification, they may be explicitly excluded in the claims. Accordingly, since the doped electroconductive polymer is explicitly mentioned as an alternative proton-supplying material, it may be excluded as in above-amended claim 1.

In above-amended claim 10, styrene/vinylsulfonic acid copolymer is recited as the polymeric acid. The styrene/vinylsulfonic acid copolymer is used in Example 4 on page 24.

In new claim 14, the proton conductive ion exchange electrolytic polymer is defined as a perfluorosulfonic acid resin. An example of the perfluorosulfonic acid resin is Nafion. The perfluorosulfonic acid resin is used in the Examples because the electrodes require the presence

of proton-conductive material therein so that they are proton-conductive as well as electron-conductive.

In new claim 15, the proton-supplying material is defined to be at least one of polymeric acids enumerated therein. Polyvinylsulfonic acid and phenolsulfonic acid novolac resin are excluded from the definition of the polymeric acid in claim 15 as will be discussed below.

Claims 1 and 10 stand finally rejected under 35 U.S.C.§ 103(a) as being unpatentable over WO 01/43215 (equivalent to Abe et al., U.S. 2003/0113611, referred to as Abe '611).

This rejection is respectfully traversed.

Abe '611 discloses a fuel cell in which at least one of the cathode and the anode comprises an electroconductive porous substrate, an inorganic catalyst such as platinum, and as an electrode catalyst, an electroconductive organic polymer.

According to Abe '611, the electroconductive organic polymer preferably has a dopant. Thus, when the electrodes contain a polymeric acid working as a dopant, the electrodes inevitably contain an electroconductive organic polymer such as polyaniline in combination with the polymeric acid dopant, which material is expressly excluded from above-amended claim 1.

Although the electrodes in the presently claimed fuel cell comprise a proton-conductive ion exchange electrolytic polymer, the anode contains no such an electroconductive organic polymer as polyaniline doped with a polymeric acid.

Furthermore, in new claim 15, the proton-supplying material is at least one of certain enumerated polymeric acids, and accordingly, an electroconductive organic polymer doped with a polymeric acid, such as electroconductive polyaniline doped with any polymeric acid, is expressly excluded as the proton-supplying material. Of course, polyaniline itself, as it is a polymeric base, is excluded from the definition of a polymeric acid.

The fuel cell of the present claims has an unexpectedly high power output if reformed hydrogen containing carbon monoxide is supplied as a fuel into the anode because the electrode catalyst is restrained from being poisoned with carbon monoxide on account of the polymeric acid incorporated into the anode.

Thus, fuel cell of the invention has an unexpected result, and Abe '611 suggests nothing about such unexpected result.

Therefore, the subject matter of amended claim 1, and needless to say, also amended claim 10, and new claim 15 are completely unobvious from Abe '611.

New claim 14 recites that the electrodes comprise a polymeric acid as in above- amended claim 1 as well as a perfluorosulfonic acid resin as a proton-conductive ion exchange electrolytic polymer.

Abe '611 in no way suggests electrodes comprising the perfluorosulfonic acid resin of claim 14.

Therefore, the subject matter of the new claim 14 is also unobvious from Abe '611.

No further issues remaining, allowance of this application is respectfully requested.

If the Examiner has any comments or proposals for expediting prosecution, please contact undersigned at the telephone number below.

Respectfully submitted,

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